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Appl. No. : **10/732,992**
Filed : **December 11, 2003**

REMARKS

This response is to the Office Action dated October 12, 2006 in the subject application.

In the rejection, the Examiner has rejected all of the claims under 35 U.S.C. § 103(a) as being obvious over Verma et al. (WO 97/49842) in view of Chandler et al. (U.S. 5,577,388), or further combined with a number of other references as will be discussed hereinafter. The rejections are respectively traversed.

The rejections are improper under 35 U.S.C. § 103(a) since the primary reference of Verma et al., which is the International PCT equivalent of U.S. Patent No. 6,004,475, and the present application were at the time the invention of U.S. Application Serial No. 09/656,545 (the parent application) and the present application was made, owned by FMC Corporation. Submited herewith are copies of the U.S. Patent & Trademark Office Patent Assignment Abstract of Title for U.S. Patent 6,004,475 and U.S. Patent No. 6,758,988, the corresponding parent application to the present application. The Abstracts show that U.S. Patent No. 6,004,475 has been owned by FMC Corporation continuously from November 10, 1997, the date that the original Verma et al. patent application corresponding to WO 97/49842 was assigned to FMC Corporation, to September 7, 1999, the date the provisional applications on which both U.S. Patent No. 6,758,988 and the present application rely, and further to September 6, 2000, the date that the parent application for U.S. Patent No. 6,758,988 and the present application was originally filed. Thus, the above evidence shows that FMC Corporation owned U.S. Patent No. 6,004,475 and its corresponding PCT publication WO 97/49842 on the day that the invention of U.S. Patent No. 6,758,988 and the present application was made. Accordingly, it is submitted that under the provisions of 35 U.S.C. § 103(c), WO 97/49842 (Verma et al.) is disqualified as prior art; *see* M.P.E.P. 706.02(I)(1) and 706.02(I)(2) and the rejections of record based on the Verma et al. PCT publication are improper.

Applicants also traverse the rejections under 35 U.S.C. § 103(a) and the Examiner's reasons for combining Verma et al. with Chandler et al. and further combined with other secondary references. The Examiner states that Chandler et al. is relied on to cure the deficiencies of Verma et al. regarding the addition of alkaline metal hydroxides in percentages of about 20% to about 80% by weight, and that it would be obvious to combine the teachings of Chandler et al. with the teachings of Verma et al. since both are directed toward absorption

solutions for refrigeration systems. The Examiner cites cases to support the position that it is *prima facie* obvious to combine two compositions, each taught for the same purpose, to yield a third composition for that same purpose. The Examiner's point is not well taken and the cited cases are not in point in this prosecution. Following the Examiner's own statement and reasoning, if one were to combine the teachings of Verma et al. and Chandler et al., thereby combining the compositions of the two respective references to form a third composition, the resulting third refrigeration solution composition would comprise about 40% to about 65%, by weight, of an alkali metal halide (Verma et al., page 10, line 16), between about 30% and about 80%, by weight, of an alkali metal hydroxide (Chandler et al., col. 2, lines 1-3), at least two parts per million, by weight, of an amine having between four and twenty carbon atoms (Chandler et al., col. 3, lines 42-45) and heteropolycomplex anion of a transitional metal as a corrosion inhibitor (Verma et al., page 3, line 36). Such a resulting third composition is not claimed in any of the claims recited in the present application. Accordingly, the combination of references fails teach or suggest any compositions claimed in the present application under 35 U.S.C. § 103(a) and rejection of Claims 43-56 and 73 over Verma et al. in view of Chandler et al. is improper.

The further combination of Kujak et al. with Verma et al. and Chandler et al. in rejection of Claims 58-63 and 74 is also improper. The Kujak et al. reference is relied on for incorporating transition metal halides such as cobalt chloride and germanium bromide as corrosion inhibitors. It is submitted that such an additional reference simply adds yet another corrosion inhibitor to the previously described composition resulting from the combination of Verma et al. and Chandler et al., to create yet another composition which is not claimed by Applicants. Again, Verma et al. is directed to an invention of using a heteropolycomplex anion of a transition metal for inhibiting corrosion in an alkali metal halide refrigeration composition containing 40% to 65% alkali metal halide, and Chandler et al. uses an amine for increasing the rate of water vapor sorption in a lithium halide or alkali metal hydroxide composition. The further addition of a germanium bromide or cobalt chloride to the resulting composition would not yield a third composition recited in any of Applicants' claims.

Claims 57-60, 62 and 74 are rejected over Verma et al. in view of Chandler et al. and further in view of Takahashi. The rejection is respectfully traversed for the same reasons previously set forth. Takahashi is relied on to teach the addition of cobalt chloride and antimony

trioxide. The further inclusion of these materials in the previously described composition resulting from the combination of Chandler et al. and Verma et al. is not recited in the present claims. Accordingly, the rejection is improper and should be withdrawn.

Claims 57-60 and 62 are rejected over Verma et al. in view of Chandler et al. and further in view of Yazaki Corp. The rejection is respectfully traversed. Yazaki Corp. is relied on to add yet another material, diantimony trioxide. It is submitted that the further addition of diantimony trioxide to the previously described compositions resulting from the combination of Chandler et al. and Verma et al. would result in a third composition not recited in Applicants' claims herein. Accordingly, the rejection is improper.

Claims 57-60 and 62 are rejected over Verma et al. in view of Chandler et al. and further in view of Greenley et al. Greenley et al. is cited to teach the use of antimony oxides as corrosion inhibitors. However, the further addition of antimony oxides to a composition resulting from the combination of Verma et al. and Chandler et al. does not meet the compositions recited in Applicants' claims for the aforesaid reasons. Accordingly, the rejection is improper and should be withdrawn.

Claims 76 and 77 are rejected under 35 U.S.C. § 103(a) as unpatentable over Verma et al. in view of Greenley et al. and further in view of Cheng et al. The rejection is respectfully traversed. The absorption solutions recited in Claims 76 and 77 are understood to be alkali metal hydroxide and/or alkaline earth metal hydroxide based absorption solutions as clearly described in the specification. However, the Verma et al. absorption solutions are alkali metal halide compositions used in conventional amounts, specifically amounts of between 40 and about 65% by weight as described clearly in page 10 of the reference. Such alkali metal halide compositions that are pH adjusted with a lithium hydroxide are simply not fairly descriptive of Applicants' claimed hydroxide based refrigeration compositions. Moreover, the addition of the antimony oxides taught by Cheng et al. to modify such alkali metal halide compositions does not result in compositions recited in Applicants' claims. Accordingly, the rejection is improper.

Since the primary reference of record, Verma et al., U.S. Patent No. 6,004,475 is disqualified and is not available as prior art in the present application under the provisions of 35 U.S.C. § 103(c), the final rejection is improper and must be withdrawn. Accordingly, the claims in this application are allowable and notice thereof is respectfully requested.

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Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 11/16/06

By: _____
Jerry R. Seiler
Registration No. 23,051
Attorney of Record
Customer No. 20,995
(619) 235-8550

3093030/110706

United States Patent and Trademark Office

Assignments on the Web > Patent Query

Patent Assignment Abstract of Title

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Total Assignments: 3

Patent #: 6004475 **Issue Dt:** 12/21/1999 **Application #:** 08876126 **Filing Dt:** 06/23/1997

Inventors: SHYAM K. VERMA, MANUEL S. MEKHJIAN, GEORGE R. SANDOR, PHILIP J. BOON, YURII I KUZNETSOV et al

Title: CORROSION INHIBITING SOLUTIONS FOR REFRIGERATION SYSTEMS COMPRISING HETEROPOLY COMPLEX ANIONS OF TRANSITION METAL ELEMENTS

Assignment: 1

Reel/Frame: 008913/0387 **Recorded:** 01/15/1998 **Pages:** 5

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignors: VERMA, SHYAM K. **Exec Dt:** 11/10/1997

MEKHJIAN, MANUEL S. **Exec Dt:** 11/10/1997

SANDOR, GEORGE R. **Exec Dt:** 11/10/1997

BOON, PHILIP J. **Exec Dt:** 11/10/1997

KUZNETSOV, YURII I. **Exec Dt:** 11/10/1997

OLEINIK, SERGEY V. **Exec Dt:** 11/10/1997

Assignee: FMC CORPORATION
INTELLECTUAL PROPERTY LAW DEPARTMENT
1735 MARKET STREET
PHILADELPHIA, PENNSYLVANIA 19103

Correspondent: ALSTON & BIRD LLP
MELISSA B. PENDLETON
BELL SELTZER INTELLECTUAL PROPERTY LAW
GROUP, P.O. DRAWER 34009
CHARLOTTE, NC 28234

Assignment: 2

Reel/Frame: 013525/0574 **Recorded:** 11/19/2002 **Pages:** 51

Conveyance: SECURITY AGREEMENT

Assignors: FMC CORPORATION **Exec Dt:** 10/21/2002

INTERMOUNTAIN RESEARCH AND DEVELOPMENT CORPROATION **Exec Dt:** 10/21/2002

Assignee: CITICORP USA, INC. (AS ADMINISTRATIVE AGENT)
TWO PENNS WAY
NEW CASTLE, DELAWARE 19720

Correspondent: WEIL, GOTSHAL & MANGES LLP
JONATHON TUNIC
767 5TH AVENUE
NEW YORK, NY 10153

Assignment: 3

Reel/Frame: 017336/0374 **Recorded:** 03/21/2006 **Pages:** 13

Conveyance: RELEASE OF PATENT SECURITY INTEREST

Assignor: CITICORP USA, INC. (AS ADMINISTRATIVE AGENT) **Exec Dt:** 02/24/2006

Assignee: FMC CORPORATION
1735 MARKET STREET
PATENT AND LICENSING DEPARTMENT
PHILADELPHIA, PENNSYLVANIA 19103

Correspondent: GAIL H. GRIFFIN
MORGAN, LEWIS & BOCKIUS LLP
1701 MARKET STREET
PHILADELPHIA, PA 19103

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Patent Assignment Abstract of Title

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Total Assignments: 4

Patent #: 6758988 **Issue Dt:** 07/06/2004 **Application #:** 09656545 **Filing Dt:** 09/06/2000

Inventors: Shyam Kumar Verma, George Robert Sandor

Title: CORROSION INHIBITING SOLUTIONS FOR ABSORPTION SYSTEMS

Assignment: 1

Reel/Frame: 011346/0955 **Recorded:** 12/04/2000 **Pages:** 3

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignors: VERMA, SHYAM KUMAR **Exec Dt:** 11/15/2000

SANDOR, GEORGE ROBERT **Exec Dt:** 11/14/2000

Assignee: FMC CORPORATION
1735 MARKET STREET
PHILADELPHIA, PENNSYLVANIA 19103

Correspondent: ALSTON & BIRD, LLP
MELISSA B. PENDLETON
P.O. BOX 34009
CHARLOTTE, NC 28234-4009

Assignment: 2

Reel/Frame: 013525/0574 **Recorded:** 11/19/2002 **Pages:** 51

Conveyance: SECURITY AGREEMENT

Assignors: FMC CORPORATION **Exec Dt:** 10/21/2002

INTERMOUNTAIN RESEARCH AND DEVELOPMENT CORPROATION **Exec Dt:** 10/21/2002

Assignee: CITICORP USA, INC. (AS ADMINISTRATIVE AGENT)
TWO PENNS WAY
NEW CASTLE, DELAWARE 19720

Correspondent: WEIL, GOTSHAL & MANGES LLP
JONATHON TUNIC
767 5TH AVENUE
NEW YORK, NY 10153

Assignment: 3

Reel/Frame: 017336/0374 **Recorded:** 03/21/2006 **Pages:** 13

Conveyance: RELEASE OF PATENT SECURITY INTEREST

Assignor: CITICORP USA, INC. (AS ADMINISTRATIVE AGENT) **Exec Dt:** 02/24/2006

Assignee: FMC CORPORATION
1735 MARKET STREET
PATENT AND LICENSING DEPARTMENT
PHILADELPHIA, PENNSYLVANIA 19103

Correspondent: GAIL H. GRIFFIN
MORGAN, LEWIS & BOCKIUS LLP

1701 MARKET STREET
PHILADELPHIA, PA 19103

Assignment: 4
Reel/Frame: 017730/0730 **Recorded:** 06/06/2006 **Pages:** 3
Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).
Assignor: FMC CORPORATION **Exec Dt:** 06/05/2006
Assignee: ROCKY RESEARCH
1598 FOOTHILL DRIVE
BOULDER CITY, NEVADA 89005
Correspondent: F. MICHAEL SAJOVEC
MYERS BIGEL SIBLEY & SAJOVEC
P.O. BOX 37428
RALEIGH, NC 27627

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